DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453

(707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-000798 Address: 333 Burma Road **Date Inspected:** 06-Nov-2007

City: Oakland, CA 94607

OSM Arrival Time: 2300 Project Name: SAS Superstructure **OSM Departure Time:** 730 Prime Contractor: American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Sha Zhi & Huang Li No **Inspected CWI report:** Yes **Rod Oven in Use:** Yes No N/A No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Oualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A **Approved Drawings:** Yes No N/A Approved WPS: Yes No Yes N/A **Delayed / Cancelled:** No

34-0006 **Bridge No: Component:** Caltrans Mockup

Summary of Items Observed:

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77M, 89M, 114M and U-Rib Trial Assembly, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

WBS Item Description **Status** Dwg No. Diaphragm Plate Sub-Assy NA NA Work in Progress Mock-Up 89M, Diaphragm Plate Sub-Assembly: ZPMC performed shielded metal arc welding (SMAW). The welding is performed at diaphragm plate to web plate, partial joint penetration (PJP) weld joint. The weld is identified as MUSB-SA13 B/C 7. The welders are identified as Mr. Li Zhengxu, welder stamp 066179 and Mr. Liu guoxuan, welder stamp 066471, welding fill pass weld in the horizontal position. The welders were using welding procedure specification WPS-B-T-3312-TC-P5, Revision 0. Caltrans QA Inspector observed ZPMC Quality Control (QC), Certified Welding Inspector (CWI), Mr. Shi Zhi and Bureau Veritas inspector, Mr. Huang Li monitoring welding activities at the workstation. Caltrans QA Inspector verified current welding parameters at approximately 250 amps and 160 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 180 Celsius (356 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. SMAW consumable is verified and identified as Excalibur 9018M MR, classification E9018M-H4R, specification AWS A5.5, and diameter 4.8 mm (.189 inch).

Summary of Conversations:

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

| Inspected By: | Hasler,Mike | Quality Assurance Inspector |
|---------------|----------------|-----------------------------|
| Reviewed By: | Cuellar,Robert | QA Reviewer |